

The following is the replacement for the first paragraph of page 1 of the application:

This application claims the benefit of U.S. provisional application number 60/154,114 filed on September 15, 1999.

Please amend the first paragraph of page 17 of the application per the following marked-up paragraph:

1997 and *SEG Annual Meeting Expanded Abstracts*, v. 1, 456-459, 1998. Preferably, the positions and strengths of all source currents applied at or within the surface of the land surface and at, above, or within the seafloor 1 are explicitly included in the inversion, by means of Green's functions or other standard mathematical techniques that are well known to one of skill in the art. Preferably, separate inversions are performed for receiver data collected using the grounded electrode sources (4 and 5 in FIG. 1, 11\_and 12 in FIG. 2) and for receiver data collected using the insulated loop source 6 and the earth's natural background magnetotelluric source when the other sources are turned off. Preferably, joint inversions of receiver data collected using any combination of the grounded source (4 and 5 in FIG. 1, 11\_and 12 in FIG. 2), insulated source 6, and magnetotelluric source are also performed.

The following is the replacement for the first paragraph of page 17 of the application:

1997 and *SEG Annual Meeting Expanded Abstracts*, v. 1, 456-459, 1998. Preferably, the positions and strengths of all source currents applied at or within the surface of the land surface and at, above, or within the seafloor 1 are explicitly included in the inversion, by means of Green's functions or other standard mathematical techniques that are well known to one of skill in the art. Preferably, separate inversions are performed for receiver data collected using the grounded electrode sources (4 and 5 in FIG. 1, 11 and 12 in FIG. 2)